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**Title: Occurrence and impact of domestic violence and abuse in gay and bisexual men attending a UK sexual health service: a cross sectional survey**

**Short Title: Occurrence and impact of domestic violence in gay and bisexual men**

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## **Abstract**

This cross sectional survey measured adult experience and perpetration of negative and potentially abusive behaviours with partners and its associations with mental and sexual health problems, drug and alcohol abuse in gay and bisexual men attending a UK sexual health service. Of 532 men, 33.9% experienced and 16.3% reported carried out a negative. Ever being frightened of a partner (aOR 2.5; 95% CI, 2.0, 3.1) and having to ask a partner's permission (aOR 2.7; 95% CI, 1.6, 4.7) were associated with increased odds of being anxious. There was increased odds of cannabis use in the last 12 months amongst men who reported ever being physically hurt (aOR 2.4; 95% CI, 1.7 to 3.6). Being frightened (aOR 2.2; 95% CI, 1.5 to 3.2), being physically hurt (aOR 2.3; 95% CI, 1.4 to 3.8), being forced to have sex (aOR 2.5; 95% CI 1.3 to 4.9) and experiencing negative behaviour in the last 12 months (aOR 1.7; 95% CI, 1.2 to 2.5) were associated with increased odds of using a Class A drugs in the last 12 months. Sexual health practitioners should be trained with regards to the risk indicators associated with DVA, how to ask about DVA and refer to support.

Keywords: domestic violence, LGBT, sexual health, mental health, alcohol and drugs

## INTRODUCTION

The UK definition of domestic violence and abuse refers to *any incident or pattern of incidents of controlling, coercive or threatening behaviour, violence or abuse between those aged 16 or over who are or have been intimate partners or family members regardless of gender or sexuality*.<sup>1</sup> In this paper we used the term domestic violence and abuse (DVA) to denote intimate partner violence or domestic violence and abuse. The terms men who have sex with men (MSM) and gay and bisexual men are reported as they are in other studies that are cited in this paper. According to the literature, MSM are more likely to be victims and/or perpetrators of intimate partner violence (IPV) compared to men who do not have sex with men.<sup>2</sup> A systematic review of mainly US studies reported the lifetime prevalence of any type of DVA amongst MSM to be between 29.7% and 78.0%.<sup>3</sup> This abuse is associated with an increased risk of depressive symptoms, substance abuse, unprotected anal sex and HIV infection.<sup>4</sup>

Health care settings are regarded as key entry points in which to address DVA with female patients and interventions implemented in sexual health and perinatal care demonstrate promising findings<sup>5,6</sup>. The World Health Organisation<sup>7</sup> recommend that health care professionals should be trained to be aware of the mental and physical health indicators of DVA, enquire sensitively about DVA and make appropriate referrals. However, little attention has been paid to the role of sexual health services in supporting gay, bisexual and other MSM affected by DVA. Recognising the risk factors associated with DVA in this group is an important first step towards raising awareness of the issue. In a separate publication from our study, we found that the majority of gay and bisexual men support enquiry for DVA by health professionals with two favouring selective enquiry and a third enquiry of all patients.<sup>8</sup> Furthermore, men in the study regarded the sexual health clinic as an appropriate setting in which to develop interventions for men affected by DVA.

Although there is a growing body of evidence on DVA in gay, bisexual and other MSM, estimates of DVA prevalence should not be interpreted in isolation. Additional data are needed to measure the severity and health impact of abuse as well as whether those involved perceive the behaviours as abusive.<sup>9</sup> Some negative behaviour between partners will fall outside of the definition of DVA, depending on perceptions of the behaviours. We report: 1) the occurrence of negative behaviours consistent with DVA (experienced from a partner and carried out towards a partner) in a sexual health service population of gay and bisexual men; 2) the perceived impact of abuse; 3) the association between negative behaviour (experienced and carried out) with mental and sexual health problems and health risk behaviours (current anxiety and depression, sexually transmitted infections and illicit drug use in the last 12 months) ; and 4) documentation of DVA in the medical records.

## **METHODS**

### **Study design**

The study is a cross-sectional survey of male patients attending the sexual health clinics of a London teaching hospital. The study received ethics approval from South West Bristol Research Ethics Committee on the 11<sup>th</sup> May 2010 (reference 10/H0106/22).

### **Participants**

Between September 2010 and May 2011, a “Health and Relationships” survey was administered in the waiting rooms of two general sexual health clinics and one specialist sexual health clinic for lesbian, gay, bisexual and transgender (LGBT) patients at a sexual health service in London. The clinics were randomly allocated across the 28-week data collection period. Male patients were

invited by the researchers to participate if they were aged 18 or over, attending the clinic alone and could read and write English. Men were given a participant information sheet and consent form with the survey to read through. Men consented to either (i) completing the survey, but not giving permission for their medical records to be accessed or (ii) completing the survey and giving permission for their medical records to be accessed which required them to provide their full name and date of birth on the consent form. Although private space in the clinic was not available for participants, the survey was formatted as a small discrete booklet and was referred to as a health survey. Men returned the survey to the researchers who were based in reception area to assist with completion and deal with any queries arising from participating in the study.

### **Survey variables**

The Health and Relationships survey<sup>10</sup> elicited demographic information and sexual orientation, as well as reported diagnoses of sexually transmitted infections in the last 12 months. Current anxiety and depression were measured with HADS, the Hospital and Anxiety Scale<sup>11</sup> using a cut-off score of 8 for the anxiety and depression sub-scales, which is indicative of the presence of a mild mood disorder. We conducted sensitivity analyses with 12+ thresholds for anxiety and depression as well as with the continuous measures of HADS. Alcohol use was measured with the AUDIT-C test<sup>12</sup>; illicit drug use was assessed using single item yes/no questions on past year use of cannabis and class A drugs (Ecstasy, LSD, cocaine, crack, heroin and injected amphetamines). We computed the AUDIT-C score and classified men who scored more than four points on this scale as men affected by alcohol abuse or dependence.<sup>13</sup>

The survey asked whether men had experienced, or carried out, one or more of four negative and potentially abusive behaviours as an adult. Negative behaviours experienced as an adult from a

current or former intimate partner included: ever felt frightened of the behaviour of a partner; ever needed to ask a partner's permission to work, go shopping, visit relatives or visit friends (beyond being considerate to and checking with a partner); ever been slapped, hit, kicked or otherwise physically hurt; and ever forced to have sex or made to engage in any sexual activity against one's will. This was followed by questions on whether this had occurred in the last 12 months, relationship with the perpetrator, frequency and escalation of abuse, and perceived impact of the behaviours based on the COHSAR (Comparing Heterosexual and Same Sex Abuse in Relationships) survey by Hester et al.<sup>9</sup> Respondents were asked whether they had ever carried out the behaviours towards a current or former partner, whether this occurred in the last 12 months and whether they perceived an effect on their partner. Respondents were also asked whether they were in a *domestically violent or abusive* relationship currently and/or in the past. Whilst most studies tend to report the negative behaviours measured as DVA, the reality is complex. Individuals may report experiencing or carrying out behaviours, but not consider them harmful nor perceive them as abusive, or only define particular behaviours as abuse.<sup>9,14</sup> In order to differentiate between behaviours that our respondents said they had experienced and/or carried out, and self-perceived DVA, in the results section we use the term 'negative behaviour' to denote the former and DVA for the latter. The survey contained a removable sheet with details of local support services and national help lines for survivors and perpetrators, and it encouraged respondents to talk to the researchers if they needed support.<sup>15</sup>

### **Medical records**

Although there was no clinical policy in the sexual health service for screening men for DVA, we wanted to explore the extent to which the issue was being detected by sexual health practitioners in this high risk population. Between December 2011 and July 2012, two clinic health advisors reviewed the sexual health medical records of patients who consented. In order for a patient to be

coded as positive for DVA, there needed to be specific documentation that the patient was experiencing some form of emotional, physical or sexual violence or abuse from a current or former partner. The researcher (AMB) trained the health advisors in the different manifestations of DVA and was available to discuss any ambiguous documentation.

### **Data analysis**

Analyses were conducted in Stata version 12.0.<sup>16</sup> For the main analysis, participants with missing data on abuse variables were excluded from estimations involving those variables. We performed separate logistic regressions for anxiety, depression, self-reported past year STI diagnosis, past year cannabis and Class A drug use, and alcohol use variables on exposure to each negative behaviour experienced and carried out. The reference group for each negative behaviour experienced from a partner, is not having experienced that particular behaviour from a partner. The reference group for each behaviour carried out towards a partner, is not having carried out that particular behaviour towards a partner. We controlled for socio-demographic variables (age, income, maximum level of education, ethnicity) and sampling design (i.e. clinic attended). The models were based on previous evidence.<sup>17</sup>

Men's responses to whether they were currently or previously "*in a relationship that could be described as domestically violent or abusive*" were compared with their responses to negative behaviours experienced and carried out.

Our main results are from a complete case analysis. We report how these results compare to the analysis we conducted on 100 complete datasets generated with the missing data imputation by chained equation (mice) routine on the assumption that the data were missing at random.<sup>18</sup>



## RESULTS

### Socio-demographic characteristics

Clinic records show that 2,657 men attended the two general sexual health clinics and the LGBT sexual health clinic on at least one occasion during the randomised weeks of the study period. Of these, 1,132 (42.4%) men completed a survey, of whom five were excluded as their sexual orientation was not reported. This should not be treated as a response rate as it not known how many surveys were disseminated and returned. It was not possible to approach all potentially eligible men. Some were called in to their appointment straight away and the clinics were busy, making it difficult to keep accurate records on the number of men entering the clinic and the number of men who were approached and agreed or disagreed to participate. This was further complicated by the fact that some men accessed the clinics more than once during the randomised weeks of the study period which could have resulted in the researchers double counting.

Of 1,127 men who reported sexual orientation, 471 (41.8%; 95% CI, 38.1% to 46.4%) self-identified as gay, 61 (5.4%; 95% CI, 4.1% to 6.8%) as bisexual and 595 (52.8%; 95% CI, 48.6% to 56.3%) as heterosexual. Of the 532 gay or bisexual men, 154 (28.9%) were recruited from the LGBT sexual health clinic, and the remainder from two general sexual health walk-in clinics. Analyses relating to negative behaviours *experienced* is based on 519 gay or bisexual men who answered all four “experiencing” behaviour questions. Analyses relating to negative behaviours *carried out* is based on 510 gay and bisexual men who answered all four questions on “carrying out” behaviours. Men who reported negative behaviours experienced and those who reported negative behaviours carried out are not mutually exclusive groups, unless otherwise stated. The proportion of missing data ranged between 3% to 7% across negative behaviours and mental health variables.

Table 1 reports the socio-demographic characteristics of the whole sample of gay and bisexual men, as well as the four mutually exclusive groups who: only experienced negative behaviour; only carried out negative behaviour; both experienced and carried out negative behaviour; and neither experienced or carried out negative behaviour.

TABLE 1 HERE

Table 2 reports the experience and perpetration of the four negative behaviours from and against a partner for three mutually exclusive groups: those men who only experienced, those who only carried out and those who both experienced and carried out. Fifty-eight of 507 (11.4%; 95% CI, 8.7% to 14.2%) men reported both experiencing and carry out negative behaviour.

TABLE 2 HERE

### **Negative behaviour experienced and/or carried out**

#### ***Prevalence and frequency of negative behaviours experienced from a partner***

One in three men (176/519, 33.9%; 95% CI, 29.4% to 37.9%) reported ever experiencing at least one negative behaviour from a partner as an adult. Being frightened was most commonly cited (130/519, 25.0%; 95% CI, 21.1% to 28.5%); being physically hurt was reported by 99 of 519 responders (19.1%, 95% CIs: 15.8% to 22.9%). Table 3 presents the frequency and escalation of negative behaviours.

TABLE 3 HERE

***Prevalence of negative behaviours carried out towards a partner***

Of 510 who answered, 83 reported carrying out a negative behaviour towards a partner (16.3%; 95% CI, 13.0% to 19.8%), with physical abuse (n=54, 10.6%; 95% CI, 7.9% to 13.8%) and frightening behaviours (n=55, 10.7%; 95% CI, 8.0% to 13.7%) most frequently cited.

***Reported negative behaviours compared with perceptions of being in a DVA relationship***

Of 168 men who reported at least one negative behaviour from a partner, 107 (63.7%; 95% CI, 56.0% to 70.9%) said that they had never been in a DVA relationship. Similarly, 57 of 82 (69.5%; 95% CI, 58.8% to 79.7%) who reported carrying out at least one negative behaviour towards a partner stated that they had not been in a “domestically violent or abusive relationship”.

***Perceived impact of negative behaviours experienced from a partner***

Of 165 who responded, 16 (9.7%; 95% CI, 4.8% to 14.6%) reported sustaining injuries requiring medical treatment as a result of experiencing negative behaviour. In terms of perceived effects, of the 162 men who responded to all questions on effect, 106 reported some effect of any kind (65.4% 95% CI: 56.7% to 72.4%). Specifically, amongst 106 men who responded, 81 (76.4%; 95% CI, 67.1% to 84.1%) said it made them feel anxious or depressed, 37 (34.9%; 95% CI, 26.0% to 45.1%) that it affected their work or studies, 27 (25.5%; 95% CI, 17.0% to 34.2%) that it made them drink more alcohol or take more drugs, and 21/105 (20.0%; 95% CI, 12.6% to 29.1%) that it damaged their physical health.

***Perceived impact of negative behaviours carried out towards a partner***

Out of 74 gay and bisexual men who reported carrying out at least one negative behaviour towards a partner, 37 (50.0%; 95% CI, 38.1% to 62.3%) felt it had a negative effect on their partner.

***Associations between negative behaviour experienced from a partner health problems***

Table 4 reports adjusted odds ratios (aOR) from logistic regressions for each of the health status variables as the outcomes, on each of the negative behaviours experienced from a partner. Men had higher odds of being above the threshold for symptoms of anxiety if they reported being frightened of a partner's behaviour, had to ask a partner's permission or had been forced to have sex or engage in sexual activity compared to those who did not. They also had higher odds of using cannabis in the last 12 months if they had been physically hurt by a partner, felt frightened of the behaviour of a partner, had been forced to have sex or engage in sexual activity or had experienced negative behaviour in the last 12 months. Being frightened of a partner, being physically hurt, being forced to have sex or engage in sexual activity and experiencing negative behaviour in the last 12 months were all associated with increased odds of using a Class A drug in the last 12 months, With the exception of forced sex, these behaviours were also associated with increased odds of scoring 5 or more on AUDIT-C for alcohol use. Sensitivity analyses indicated no associations for either the continuous or binary measures of anxiety and depression.

TABLE 4 HERE

***Associations between negative behaviour towards a partner and health problems***

Table 5 reports adjusted odds ratios (aOR) from logistic regressions for each of the health status variables as the outcomes, on each of the negative behaviours carried out towards a partner. There were higher odds of cannabis use in the last 12 months amongst men who reported frightening and physically hurting a partner compared to men who did not. Ever physically hurting a partner was associated with increased odds of using class A drugs, as high as 3.10. Men who reported carrying out at least one negative behaviour in the last 12 months had lower odds of having an STI diagnosis

in the last 12 months than men who did not. There was marginal evidence that carrying out at least one negative behaviour in the past 12 months was positively associated with symptoms of a mild anxiety disorder.

Imputing missing data using the mice technique yielded estimates of associations that were on average 30% larger for men who experienced negative behaviour and 40% larger for men who carried out negative behaviour, compared with the complete case analysis. This suggests that biases resulting from non-completion of specific items in the questionnaire might have led to under-estimates of the associations reported in this paper.

TABLE 5 HERE

#### **Audit of medical records**

Of the 532 gay and bisexual men, 238 (44.7%) consented to having their medical records reviewed, of which 211 (88.7%) were located. No evidence of DVA was found in any of the records.

#### **DISCUSSION**

This is the first study to measure the occurrence and impact of DVA in gay and bisexual men attending a UK sexual health service. It elicits detailed information on frequency, severity, injuries, perceived health impacts, and associations with objective measures of health, and health risk behaviours as well as respondents' perceptions of being in an abusive relationship. Medical records from a sub-sample of men were reviewed for documentation of DVA by sexual health practitioners.

However, the study has a number of limitations. It is not possible to determine the temporal direction of the associations between health problems and negative behaviours due to the cross sectional design. Less than half of the men who attended the sexual health service during the study period completed the survey which may have created bias. Some were unable to finish the survey before being called for their visit. Similar challenges of implementing clinic based surveys on DVA with men have been reported in general practice surgeries in the UK.<sup>19</sup> Issues such as the physical layout of the sexual health clinics and the researcher's ability to see and approach all men entering the clinic was, at times, problematic. Some men were called in to see a practitioner before the researcher had an opportunity to approach them. If men needed to be seen by different practitioners in different areas of the clinic during their visit, it became difficult to keep track of where patients were located. Therefore, data are likely to be missing at random, supporting our choice of imputation process. The survey asked about sexual orientation but not sexual behavior, and excludes men who engage in same-sex sexual activity, but do not identify as gay or bisexual. Welles et al.<sup>2</sup> found that men who experience conflict about having sex with men were less likely to identify themselves as gay or bisexual, but more likely to perpetrate intimate partner violence. Furthermore, the survey did not include a measure of internalised homophobia, which has been found to be associated with IPV perpetration among MSM.<sup>20</sup> The income categories were not exhaustive. However, it is reasonable to contend that this had no appreciable effect on the results since the current income brackets only exclude £1,000 between each bracket, and £5,000 in total on the scale. It is therefore unlikely that the measure failed to capture a large number of respondents. Moreover, if respondents failed to respond because their income was not included, this event would be distributed across all brackets, and not affect one disproportionately.

The reported occurrence of negative and potentially abusive behaviours from a partner amongst gay and bisexual men (one in three) is consistent with other studies conducted in clinical and community settings.<sup>2,21,22</sup> It is also higher than reported negative and potentially abusive behaviour found in heterosexual men attending general practice clinics in the UK, from another study with in the PROVIDE programme which used the same survey.<sup>23</sup> In our study, 11% of men reported both experiencing and carrying out negative behaviour. It is not known whether this was bidirectional abuse with the same partner, or if men had shifted from victimisation to perpetration in different relationships.<sup>24</sup> Questions to determine negative behaviour experienced and carried out within different relationships could have been included in the survey, but it was important to consider the respondent burden.

Our analysis found higher odds of poor mental health symptoms in men who experience or carry out abuse, although strong evidence for these effects is only apparent for a few behaviours. The imputed analysis suggests that the association between abuse and poor mental health may be an underestimate. Negative behaviours experienced and carried out were associated with illicit drug use and binge drinking, a finding which has been reported in a number of US studies of gay and bisexual men exposed to partner abuse.<sup>22,25,26</sup> In terms of carrying out negative behaviour, only physically hurting a partner was associated with increased odds of using class A drugs.

The association between DVA and poor mental health and substance abuse in MSM populations has been highlighted in a systematic review by Buller et al.<sup>4</sup> Our measures of recent anxiety and depression (HADS) did not show an association across all negative behaviours experienced or carried out. However, HADS asks about symptoms in the past week and fails to capture past

depression or anxiety. Attempting to measure whether depression or anxiety occurred concurrently with the abuse would have proved challenging due to recall bias. It is also possible that the abuse did not have a lasting effect.

Our study found lower odds of having a sexually transmitted infection (STI) in the last 12 months amongst men reporting carrying out a negative behaviour in the last 12 month and those who reported being in an abusive relationship in the past. Whilst difficult to explain, our survey did not include a measure of sexual risk behaviour. Community surveys from North America demonstrate that gay and bisexual men affected by DVA are more likely engage in sexual risk behaviours such as unprotected anal sex, which can result in STI transmission.<sup>22,27,28</sup> Our survey was conducted in a sexual health service where men attend for prevention as well as treatment and they may have had better sexual health compared to studies of MSM in the community. It is also possible that experiences of negative behaviour occurred in relationships that had ended thereby reducing men's risk of contracting an STI in the last 12 months.

Two-thirds of men who reported experiencing or carrying out at least one type of negative behaviour consistent with abuse did not consider themselves to have been in a “*domestically violent or abusive relationship*”. This confirms that broad generic questions on abuse result in under-reporting compared to questions about specific behaviours. Gay and bisexual men find it difficult to make sense of their abuse experiences because historically discourses on DVA have constructed the issue as being about men's violence against women.<sup>9</sup> In a survey of same sex DVA by Hester et al.<sup>9</sup> respondents were most likely to define their experiences as DVA if they had experienced physical or sexual abuse or multiple forms of abuse, compared to those who



experienced emotional abuse only. Therefore, interventions involving enquiry for DVA may be more likely to elicit disclosure when questions are asked about specific acts of abuse, frequency, severity, escalation and impact.

The audit of the medical records found no documentation of DVA. This is likely to reflect the absence of a policy of asking male patients about abuse at the time, a consequent low disclosure rate in the clinics, men's lack of recognition of their experiences as abuse and possibly a failure to record disclosures that are made. However, without official documentation, men may be deprived of their right to protect themselves from the abuser if pursuing legal remedies or seeking accommodation. Furthermore, without a system for recording DVA there is no method of communicating the information to other health professionals involved in the patient's care.

The findings of this study are significant in the context of the Public Health England<sup>29</sup> action plan 2015-2016 where DVA is highlighted as a major social determinant of the health inequalities affecting gay, bisexual and other MSM. PHE plans to improve the evidence base regarding same sex partner violence and its impacts in order to inform clinical practice and service provision.

There have been no intervention studies within sexual health services for gay and bisexual men affected by DVA, yet studies of women show they are opportune settings for interventions involving enquiry for DVA and referral to support services.<sup>5,30,31</sup> The National Institute for Clinical Excellence Domestic Violence Guidelines<sup>32</sup> cite sexual health services as a setting where clinicians should ask service users about DVA as part of routine good clinical practice "*even where there are no indicators of such violence and abuse*". Further research is necessary as different intervention

approaches may be needed for gay, bisexual and other men who have sex with men. Sexual health services can play an important role in supporting gay, bisexual and other MSM who experience or perpetrate DVA. Training and awareness-raising should include information on the prevalence of DVA, associated health problems, risk indicators, how to make sensitive enquiries about DVA and respond to disclosures of abuse. Health practitioners also need to be aware of the growing number of organisations that are dedicated to offering practical and emotional support to lesbian, gay, bisexual and transgender communities exposed to domestic violence.

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**Table 1: Socio-demographic characteristics of gay and bisexual men**

	Experienced Negative behaviour only (N=118)			Carried out negative behaviour only (N=25) <sup>a</sup>		Both experienced and carried out negative behaviour (N=58)		
	n	%	95% Confidence Interval	n	%	n	%	95% Confidence Interval
<b>Mean age</b>	35			35		34		
S.D	11			10		8		
Range	(18, 75)			(23, 60)		(20, 57)		
N	115			24		57		
<b>Ethnicity</b>								
White	91	77.8%	(69.8%, 85.4%)	19	76.0%	43	76.8%	(64.2%, 87.5%)
Mixed	9	7.7%	(3.3%, 12.9%)	1	4.0%	4	7.1%	(0.8%, 16.6%)
Asian or Asian British	3	2.6%	(0.5%, 6.8%)	1	4.0%	3	5.4%	(0.1%, 13.2%)
Black or Black British	8	6.8%	(2.6%, 12.5%)	2	8.0%	4	7.1%	(1.0%, 15.9%)
Chinese or other	6	5.1%	(1.2%, 9.6%)	2	8.0%	2	3.6%	(-0.5%, 10.2%)
<b>Partner status</b>								
Currently has partner	52	44.4%	(34.9%, 53.7%)	17	70.8%	35	60.3%	(46.2%, 74.1%)
Currently has no partner	65	55.6%	(46.4%, 64.7%)	7	29.2%	23	39.7%	(27.0%, 55.0%)
Lives with this partner	27	52.9%	(37.9%, 69.3%)	12	70.6%	23	65.7%	(45.7%, 82.3%)
Does not live with this partner	24	47.1%	(31.1%, 62.1%)	5	29.4%	12	34.3%	(16.7%, 54.0%)
<b>Parenting</b>								
Is a parent	10	8.6%	(3.2%, 14.3%)	1	4.0%	5	8.6%	(1.9%, 17.6%)
Is not a parent	106	91.4%	(85.4%, 96.4%)	24	96.0%	53	91.4%	(81.8%, 97.8%)
<b>Employment status</b>								
In paid employment	100	89.3%	(83.6%, 94.6%)	23	95.8%	52	91.2%	(82.8%, 97.5%)
Not in paid employment	12	10.7%	(5.1%, 17.0%)	1	4.2%	5	8.8%	(2.0%, 17.5%)
<b>Annual income or benefits</b>								
Up to £10,000	11	11.5%	(4.8%, 18.3%)	1	4.0%	3	6.8%	(-0.2%, 16.4%)
£11,000-£20,000	16	16.7%	(9.0%, 25.4%)	4	16.0%	7	15.9%	(4.7%, 30.4%)
£21,000-£30,000	18	18.8%	(11.0%, 27.4%)	5	20.0%	14	31.8%	(16.3%, 50.4%)
£31,000-£40,000	19	19.8%	(11.8%, 28.1%)	8	32.0%	6	13.6%	(3.6%, 27.0%)
£41,000-£50,000	13	13.5%	(7.2%, 21.8%)	2	8.0%	4	9.1%	(0.5%, 20.6%)
£51,000-£60,000	6	6.3%	(1.8%, 12.2%)	0	0%	3	6.8%	(-0.4%, 17.0%)
More than £60,000	13	13.5%	(7.2%, 21.3%)	5	20.0%	7	15.9%	(3.1%, 30.8%)

**Table 1: Socio-demographic characteristics of gay and bisexual men (ctd)**

	Experienced Negative behaviour only (N=118)			Carried out negative behaviour only (N=25) <sup>a</sup>		Both experienced and carried out negative behaviour (N=58)		
	n	%	95% Confidence Interval	n	%	n	%	95% Confidence Interval
<b>Highest educational qualification</b>								
No education	4	3.4%	(0.7%, 8.0%)	1	4.0%	3	5.3%	(-0.4%, 12.5%)
GCSE/O Level <sup>1</sup>	7	6.0%	(2.5%, 11.9%)	3	12.0%	7	12.3%	(3.7%, 23.9%)
NVQ <sup>2</sup>	18	15.5%	(8.3%, 22.4%)	0	0.0%	3	5.3%	(-0.2%, 13.4%)
A Level <sup>3</sup>	0	0.0%	--	1	4.0%	7	12.3%	(4.4%, 23.2%)
Professional Qualification	10	8.6%	(3.3%, 14.1%)	2	8.0%	4	7.0%	(0.5%, 15.9%)
Bachelor's Degree	41	35.3%	(26.3%, 45.2%)	9	36.0%	19	33.3%	(20.9%, 47.5%)
Postgraduate Degree	36	31.0%	(22.5%, 39.9%)	9	36.0%	14	24.6%	(13.0%, 37.3%)
<b>Housing</b>								
Private owned	39	33.3%	(24.4%, 42.8%)	10	40.0%	21	36.2%	(22.4%, 49.7%)
Private rented	60	51.3%	(41.8%, 59.7%)	10	40.0%	27	46.6%	(33.1%, 60.9%)
council housing	9	7.7%	(2.9%, 13.2%)	3	12.0%	3	5.2%	(0.2%, 12.1%)
other	9	7.7%	(3.4%, 14.0%)	2	8.0%	7	12.1%	(4.4%, 23.4%)

<sup>a</sup>Even with bootstrapping, confidence intervals were not obtainable for this column due to the small numbers and (in most cases) extreme proportions.

<sup>1</sup> General Certificate of Secondary Education (GCSE) and Ordinary Level (O Level) are academic qualifications of UK examination boards conferred on students

<sup>2</sup> National Vocational Qualification (NVQ) is a work based award in England, Wales and Northern Ireland achieved through assessment and training

<sup>3</sup> Advanced Level (General Certificate of Secondary Education A Level) is an academic qualification of UK examination boards conferred on students

**Table 1: Socio-demographic characteristics of gay and bisexual men (ctd)**

	Neither experienced or carried out negative behaviour (N=321)			Whole sample of respondents (N=522)		
	n	%	95% Confidence Interval	n	%	95% Confidence Interval
<b>Mean age</b>	34			35		
<b>S.D</b>	9			9		
<b>Range</b>	(18, 66)			(18, 75)		
<b>N</b>	311			507		
<b>Ethnicity</b>						
White	262	82.6%	(78.2%, 86.7%)	416	80.8%	(77.1%, 84.3%)
Mixed	16	5.0%	(3.0%, 7.8%)	30	5.8%	(4.0%, 8.2%)
Asian or Asian British	10	3.2%	(1.3%, 5.4%)	17	3.3%	(1.8%, 5.0%)
Black or Black British	14	4.4%	(2.4%, 7.0%)	27	5.2%	(3.5%, 7.2%)
Chinese or other	15	4.7%	(2.8%, 7.6%)	25	4.9%	(2.9%, 6.8%)
<b>Partner status</b>						
Currently has partner	139	43.8%	(38.8%, 50.4%)	244	47.3%	(43.0%, 52.1%)
Currently has no partner	178	56.2%	(50.8%, 61.4%)	272	52.7%	(47.9%, 57.0%)
Lives with this partner	88	63.3%	(54.7%, 71.2%)	150	61.7%	(54.7%, 67.8%)
Does not live with this partner	51	36.7%	(28.6%, 44.5%)	93	38.3%	(31.9%, 44.5%)
<b>Parenting</b>						
Is a parent	13	4.1%	(1.9%, 6.5%)	28	5.4%	(3.4%, 7.5%)
Is not a parent	304	95.9%	(93.6%, 97.7%)	488	94.6%	(92.5%, 96.4%)
<b>Employment status</b>						
In paid employment	289	93.5%	(90.5%, 96.0%)	464	92.4%	(90.1%, 94.5%)
Not in paid employment	20	6.5%	(3.9%, 9.4%)	38	7.6%	(5.3%, 9.8%)
<b>Annual income or benefits</b>						
Up to £10,000	21	7.2%	(4.3%, 10.6%)	36	7.9%	(5.3%, 10.4%)
£11,000-£20,000	45	15.5%	(11.6%, 19.7%)	72	15.8%	(12.4%, 19.5%)
£21,000-£30,000	51	17.6%	(13.6%, 22.4%)	89	19.6%	(16.0%, 23.8%)
£31,000-£40,000	59	20.3%	(15.7%, 25.2%)	91	20.0%	(16.4%, 24.1%)
£41,000-£50,000	39	13.4%	(9.5%, 17.9%)	58	12.7%	(9.6%, 16.1%)
£51,000-£60,000	17	5.9%	(3.1%, 8.6%)	26	5.7%	(3.9%, 8.0%)
More than £60,000	58	20.0%	(15.4%, 24.6%)	83	18.2%	(14.5%, 21.9%)

**Table 1: Socio-demographic characteristics of gay and bisexual men (ctd)**

	Neither experienced or carried out negative behaviour (N=321)			Whole sample of respondents (N=522)		
	n	%	95% Confidence Interval	n	%	95% Confidence Interval
<b>Highest educational qualification</b>						
No education	4	1.3%	(0.3%, 2.9%)	12	2.3%	(1.2%, 3.7%)
GCSE/O Level <sup>1</sup>	15	4.7%	(2.4%, 7.2%)	32	6.2%	(4.1%, 8.5%)
NVQ <sup>2</sup>	8	2.5%	(1.1%, 4.5%)	11	2.1%	(1.0%, 3.6%)
A Level <sup>3</sup>	34	10.7%	(7.2%, 10.9%)	59	11.5%	(8.4%, 14.1%)
Professional Qualification	25	7.9%	(5.2%, 43.2%)	41	8.0%	(5.8%, 10.8%)
Bachelor's Degree	119	37.5%	(32.0%, 41.0%)	189	36.7%	(32.5%, 41.0%)
Postgraduate Degree	112	35.3%	(30.0%, 40.8%)	171	33.2%	(29.1%, 37.8%)
<b>Housing</b>						
Private owned	131	40.9%	(35.6%, 46.5%)	202	38.8%	(34.8%, 43.0%)
Private rented	160	50.0%	(44.0%, 55.8%)	257	49.4%	(44.8%, 53.8%)
council housing	13	4.1%	(2.1%, 6.6%)	28	5.4%	(3.6%, 7.4%)
other	16	5.0%	(2.8%, 7.7%)	33	6.3%	(4.3%, 8.6%)

<sup>1</sup> General Certificate of Secondary Education (GCSE) and Ordinary Level (O Level) are academic qualifications of UK examination boards conferred on students

<sup>2</sup> National Vocational Qualification (NVQ) is a work based award in England, Wales and Northern Ireland achieved through assessment and training

<sup>3</sup> Advanced Level (General Certificate of Secondary Education A Level) is an academic qualification of UK examination boards conferred on students



**Table 2: Reported negative behaviours in gay and bisexual men: as an adult and last 12 months**

Occurrence of negative behaviours from a partner as an adult	Negative behaviour (only experienced)		Negative behaviour (carried out only) <sup>a</sup>		Negative behaviour (experienced and carried out)	
	N	% (95% CI)	N	% (95% CI)	N	% (95% CI)
Ever frightened	89	76.1 (67.8, 83.8)	21	84.0	25	43.1 (27.6, 56.7)
Ever Permission	30	25.6 (17.7, 34.2)	2	8.0	3	7.3 <sup>a</sup>
Ever physically hurt	52	44.4 (35.6, 53.6)	12	48.0	39	67.2 (54.1, 81.4)
Ever forced sex/sexual activity	31	26.5 (18.5, 34.8)	1	4.0	2	3.4 <sup>a</sup>
Abuse in the last 12 months	30	27.3 (18.6, 36.3)	11	45.8	13	23.2 (12.9, 37.6)

<sup>a</sup>Even with bootstrapping, confidence intervals were not obtainable for these instances, due to the small numbers and (in most cases) extreme proportions.

**Table 3: Frequency and escalation of negative behaviour experienced from a partner**

Frequency of negative behaviours	(N=163)		Escalation of negative behaviour	(N=153)	
	N	% (95% CI)		N	% (95% CI)
Occurred once	88	54.0 (46.1, 62.0)	Stayed the same	114	74.5 (67.5, 82.0)
For up to 6 months	35	21.5 (15.1, 28.2)	Stayed the same, but occurred more often	14	9.2 (4.9, 14.7)
For up to 1 year	10	6.1 (2.7, 10.5)	Become worse	21	13.7 (9.1, 20.2)
For over a year	30	18.4 (12.7, 25.2)	Become worse and happened more often	4	2.6 (5.0, 5.6)

**Table 4: Associations with health problems for gay and bisexual men experiencing negative behaviours from a partner**

	HADS Anxiety					HADS Depression				
	Crude ratios					Crude ratios				
	Exposed	Unexposed	aOR	95% CI	P Value	Exposed	Unexposed	aOR	95% CI	P Value
Ever Frightened	70/125	135/384	2.5	(2.0, 3.1)	<0.001	26/125	40/381	1.7	(0.4, 7.0)	0.49
Ever Permission	28/43	177/466	2.7	(1.6, 4.7)	<0.001	12/42	54/464	2.1	(0.5, 9.4)	0.33
Ever Physically Hurt	46/96	159/413	1.6	(0.8, 3.1)	0.16	17/95	49/411	1.1	(0.5, 2.6)	0.79
Ever Forced Sex	26/44	179/465	2.9	(1.6, 5.2)	<0.001	10/42	56/464	1.6	(0.7, 3.6)	0.23
Any NB in past 12 months	22/49	180/451	1.4	(0.8, 2.4)	0.31	6/48	58/449	0.8	(0.3, 2.0)	0.59
DVA relationship in the past	32/62	169/438	1.5	(0.9, 2.6)	0.14	9/60	53/436	0.9	(0.3, 2.6)	0.85
	Cannabis use last 12 months					STI diagnosis last 12 months				
	Crude ratios					Crude ratios				
	Exposed	Unexposed	aOR	95% CI	P Value	Exposed	Unexposed	aOR	95% CI	P Value
Ever Frightened	48/126	101/377	1.9	(1.1, 3.3)	0.03	51/126	134/386	1.1	(0.9, 1.4)	0.35
Ever Permission	12/41	137/462	1.3	(0.4, 4.6)	0.66	18/44	167/468	0.8	(0.6, 1.2)	0.30
Ever Physically Hurt	39/95	110/408	2.4	(1.7, 3.6)	<0.001	38/98	147/414	1.2	(0.7, 2.0)	0.42
Ever Forced Sex	19/43	130/460	2.5	(2.0, 3.1)	<0.001	21/45	164/467	1.2	(0.9, 1.5)	0.18
Any NB <sup>a</sup> in past 12 months	18/49	129/445	1.5	(1.1, 1.9)	0.009	16/48	165/455	0.7	(0.4, 1.2)	0.17
DVA relationship in the past	20/62	126/434	1.5	(0.5, 4.3)	0.46	22/62	157/440	0.8	(0.7, 1.0)	0.046
	Class A drug use last 12 months					AUDIT-C Score $\geq 5^b$				
	Crude ratios					Crude ratios				
	Exposed	Unexposed	aOR	95% CI	P Value	Exposed	Unexposed	aOR	95% CI	P Value
Ever Frightened	51/125	122/381	2.2	(1.51, 3.17)	<0.001	77/128	251/382	1.2	(1.1, 1.3)	<0.001
Ever Permission	17/39	157/467		(0.94, 2.58)		26/41	302/469			
Ever Physically Hurt	45/96	129/410	2.3	(1.42, 3.83)	0.001	67/96	261/414	2.1	(1.2, 3.4)	0.005
Ever Forced Sex	21/44	153/462	2.5	(1.3, 4.9)	0.006	31/44	297/466	1.6	(0.6, 4.2)	0.320
Any NB <sup>a</sup> in past 12 months	21/49	151/448	1.7	(1.16, 2.47)	0.006	32/49	291/452	1.7	(1.5, 1.8)	<0.001
DVA relationship in the past	19/62	153/436	1.0	(0.54, 2.04)	0.886	40/62	282/440	1.4	(0.9, 2.4)	0.168

The reference group for each negative behaviour experienced, is not having experienced that particular negative behaviour. We do not report on the association with currently being in a domestically violent or abusive relationships because only six men reported being in one.

<sup>a</sup> NB (Negative behaviour)

<sup>b</sup> A score of 5 or more on AUDIT-C is indicative of alcohol dependence or abuse

**Table 5: Associations with health problems for gay and bisexual men who carried out a negative behaviour toward a partner**

	HADS Anxiety					HADS Depression				
	Crude ratios					Crude ratios				
	Exposed	Unexposed	aOR	95% CI	P Value	Exposed	Unexposed	aOR	95% CI	P Value
Ever Frightened	26/53	174/447	1.3	(0.9, 2.1)	0.18	10/53	51/444	1.8	(0.4, 7.7)	0.46
Ever Permission	6/11	194/489	1.1	(0.2, 7.6)	0.89	4/11	57/486	4.5	(0.2, 105.8)	0.35
Ever Physically Hurt	22/53	178/447	0.8	(0.5, 1.5)	0.50	12/53	49/444	1.4	(0.5, 3.9)	0.49
Ever Forced Sex	4/7	196/493	1.7	(1.5, 1.9)	< 0.001	1/7	60/490	1.2	(0.3, 5.1)	0.79
Any NB in past 12 months	15/28	181/466	1.8	(1.0, 3.3)	0.041	6/29	53/462	3.7	(1.0, 14.6)	0.060
DVA relationship in the past	32/62	167/433	1.5	(0.9, 2.5)	0.12	9/60	51/431	0.9	(0.3, 2.7)	0.87
	Cannabis use last 12 months					STI diagnosis last 12 months				
	Crude ratios					Crude ratios				
	Exposed	Unexposed	aOR	95% CI	P Value	Exposed	Unexposed	aOR	95% CI	P Value
Ever Frightened	21/53	129/444	2.0	(1.3, 3.1)	< 0.001	22/54	157/450	1.5	(0.4, 5.0)	0.56
Ever Permission	3/11	147/486	1.5	(0.3, 8.7)	0.64	5/11	174/493	0.7	(0.0, 21.8)	0.81
Ever Physically Hurt	22/54	128/443	2.3	(1.7, 3.2)	<0.001	23/55	156/449	1.5	(0.5, 4.4)	0.45
Ever Forced Sex	5/6	145/491	1.0	-	-	3/7	176/497	0.4	(0.0, 3.2)	0.36
Any NB <sup>a</sup> in past 12 months	11/28	139/463	1.5	(0.8, 3.1)	0.22	10/29	166/469	0.7	(0.5, 0.9)	0.002
DVA relationship in the past	20/62	128/431	1.5	(0.5, 4.2)	0.49	22/62	155/436	0.8	(0.7, 1.1)	0.12
	Class A drug use last 12 months					AUDIT-C Score ≥5 <sup>b</sup>				
	Crude ratios					Crude ratios				
	Exposed	Unexposed	aOR	95% CI	P Value	Exposed	Unexposed	aOR	95% CI	P Value
Ever Frightened	24/54	149/446	1.60	(0.79, 3.22)	0.190	36/54	289/450	1.6	(0.8, 3.5)	0.198
Ever Permission	5/11	168/489	1.32	(0.33, 5.39)	0.693	7/11	318/493	1.2	(0.4, 3.9)	0.751
Ever Physically Hurt	29/54	144/446	3.10	(2.29, 4.21)	<0.001	38/54	287/450	1.6	(0.5, 5.2)	0.387
Ever Forced Sex	3/6	170/494	1.6	(0.0, 31.8)	0.76	3/6	322/498	0.6	(0.4, 0.9)	0.013
Any NB <sup>a</sup> in past 12 months	12/29	160/465	1.27	(0.66, 2.46)	0.478	20/29	30/469	1.3	(0.3, 5.1)	0.753
DVA relationship in the past	19/62	153/433	1.04	(0.55, 2.0)	0.898	40/62	280/437	1.4	(0.9, 2.3)	0.159

The reference group each negative behaviour carried out, is not having carried out that particular negative behaviour. We do not report on the association with currently abusive relationships because only six men reported being in one.

<sup>a</sup> NB (Negative behaviour)

<sup>b</sup> A score of 5 or more on AUDIT-C is indicative of alcohol dependence or abuse